

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:
Ingo BOECKMANN et al.

Examiner: James S. Wozniak

For: METHOD AND DEVICE FOR
OUTPUTTING INFORMATION
AND/OR MESSAGES, USING SPEECH

Art Unit: 2626

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REPLY BRIEF UNDER 37 C.F.R. § 41.41

SIR:

Appellants submit the present Reply Brief in response to the Examiner's Answer dated April 19, 2007.

For the reasons set forth in the Appeal Brief and those set forth below, it is again respectfully submitted that the final rejections of claims 11 to 29 should be reversed.

Claims 1 to 10 have been canceled. Claims 11 to 29 have been finally rejected.

Appellants incorporate herein arguments previously presented in the Appeal Brief dated August 9, 2006. In addition, the following comments are presented to further highlight the differences between the claimed subject matter and the applied prior art references.

Claims 11 to 18, 21 to 23, 28, and 29 stand finally rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,359,713 ("Tsunoda"). It is respectfully submitted that Tsunoda does not anticipate any of these claims for at least the following reasons.

Claim 11 relates to a method for outputting at least one of information and status messages of at least one electrical device using speech, and recites outputting the at least one of information and status messages on an output device using an intonation in accordance with a relevance. Claim 21 relates to a device for outputting at least one of information and status messages of at least one electrical device using speech, and recites the at least one of information and status messages being selectively output in the output device using an intonation in accordance with a relevance.

As set forth in the Appeal Brief, while Tsunoda may refer generally to simultaneously outputting two kinds of information having different tone, pitch and loudness, and to variations in volume depending on the information content, Tsunoda does not disclose, or even suggest, outputting at least one of information and status messages on an output device using an intonation in accordance with a relevance.

The Examiner's Answer asserts that "[i]n order for a user to be able to readily distinguish a 'priority according to [an] importance' between multiple types of messages (*Col. 7, Lines 49-68*), Tsunoda teaches that a voice message is output with a specific, tone, pitch, and loudness (*Col. 5, Lines 16-41; and Col. 7, Lines 49-68*).” Examiner's Answer, pages 5 to 6. This assertion misrepresents the subject matter of the cited sections for the following reasons.

With respect to Tsunoda, column 5, lines 16 to 41, the cited section merely indicates that a volume is selected depending on the message content.

With respect to Tsunoda, column 7, lines 49 to 68, the cited section refers to predetermining a priority of messages where a situation warrants outputting of more than one message, so that an order in which the messages are output can be set or particular ones of the messages to output can be selected while disregarding the others. The cited section further provides that where messages are to be output in quick succession or simultaneously, then different voices and/or volumes are used for the different output messages so that the driver can comprehensibly hear both messages. Thus, the selection of a particular voice or volume for a particular one of the messages, as described at column 7, lines 49 to 68, is not in accordance with the message's relevance. Instead, the particular selection is made so that the selected voice and volume differs with that of the other output messages. The cited section does not indicate how the particular voice or volume is selected for each different message. For example, the particular voices and volumes might be randomly allocated to the different messages.

Accordingly, with respect to selecting a particular manner to output a message based on the message's content, the cited sections provide, at most, for selecting a particular *volume* based on a message's content. *See* Tsunoda, column 5, lines 16 to 41.

Thus, Tsunoda does not disclose, or even suggest, "outputting the at least one of information and status messages on an output device using an *intonation* in accordance with a relevance," as recited in claim 11 or "the at least one of information and status messages being selectively output in the output device using an *intonation* in accordance with a relevance," as recited in claim 21.

Accordingly, for the reasons set forth above and in the Appeal Brief, Tsunoda does not disclose, or even suggest, all of the features recited in either of claims 11 and 21. It is therefore respectfully submitted that Tsunoda does not anticipate either of claims 11 and 21.

As for claims 12 to 18, 22, 23, 28, which ultimately depend from claim 11 and therefore include all of the features recited in claim 11, and as for claim 29, which depends from claim 21 and therefore includes all of the features recited in claim 21, it is respectfully submitted that Tsunoda does not anticipate these dependent claims for at least the same reasons set forth above in support of the patentability of claims 11 and 21, respectively.

As further regards claim 13, as set forth in the Appeal Brief, Tsunoda does not disclose, or even suggest, that if information and/or a status message requires immediate attention, then the information and/or message is output using a command intonation.

The Examiner's Answer asserts that Tsunoda discloses this feature at column 3, lines 24 to 35, column 5, lines 16 to 41, and column 7, lines 49 to 68. With respect to column 5, lines 16 to 41 and column 7, lines 49 to 68, as explained above, these sections of Tsunoda provide for changing a volume in accordance with an urgency of a message and to providing multiple messages using different voices and/or volumes so that they may be distinguishable from each other and therefore coherent to the driver, but do not provide for using a command intonation if the information and/or message that is output requires immediate attention. Indeed, column 5, lines 16 to 41 and column 7, lines 49 to 68 do not refer to a command intonation at all. With respect to column 3, lines 24 to 35, the cited section refers to a command "Replenish washer liquid" but does not disclose, or even suggest, that if information and/or a message requires immediate attention then it is output using a command intonation.

For this additional reason, Tsunoda does not disclose, or even suggest, all of the features recited in claim 13, and therefore does not anticipate claim 13.

As further regards claim 16, as set forth in the Appeal Brief, Tsunoda does not disclose, or even suggest, that a speaking voice is changed for information and/or status messages that require immediate action.

The Examiner's Answer asserts that Tsunoda discloses this feature at column 7, lines 49 to 68. As explained above, the cited section refers to providing multiple messages using different voices, *e.g.*, male and female, and/or volumes so that they may be distinguishable from each other and therefore coherent to the driver, but do not provide for changing a speaking voice for a particular information and/or message if the particular information and/or message requires immediate attention.

For this additional reason, Tsunoda does not disclose, or even suggest, all of the features recited in claim 16, and therefore does not anticipate claim 16.

As further regards claim 17, as set forth in the Appeal Brief, Tsunoda does not disclose, or even suggest, increasing an intonation and a connotation of information and/or status messages that require immediate action in accordance with importance.

The Examiner's Answer asserts that Tsunoda discloses this feature in that Tsunoda, at column 5, lines 16 to 41, provides for varying a volume based on a message's urgency. However, while Tsunoda may refer to variations in volume depending on the information content, Tsunoda does not disclose, or even suggest, "increasing the intonation and a connotation of the at least one of information and status messages requiring immediate action in accordance with importance."

For this additional reason, Tsunoda does not disclose, or even suggest, all of the features recited in claim 17, and therefore does not anticipate claim 17.

As further regards claim 18, as set forth in the Appeal Brief, Tsunoda does not disclose, or even suggest, varying an intonation with a decreasing connotation for information and/or status messages not requiring immediate action.

The Examiner's Answer refers to column 5, lines 16 to 41 and column 7, lines 62 to 64 of Tsunoda as allegedly disclosing these features. However, as explained above, these sections refer to changing a volume depending on a message's urgency and do not disclose, or even suggest, varying an intonation.

For this additional reason, Tsunoda does not disclose, or even suggest, all of the features recited in claim 18, and therefore does not anticipate claim 18.

As further regards claim 23, as set forth in the Appeal Brief, Tsunoda does not disclose, or even suggest, that a male voice is used for information and/or status messages

requiring immediate attention and a female voice is used for information and/or status messages not requiring immediate action.

The Examiner's Answer refers to column 7, lines 49 to 68 of Tsunoda as allegedly disclosing these features. However, as explained above, this section refers to providing multiple messages using different voices, *e.g.*, with regard to gender, and/or volumes so that they may be distinguishable from each other and therefore coherent to the driver. The selection of a particular voice for a particular one of the messages, as described at column 7, lines 49 to 68, is not dependent upon whether the message requires immediate action. Instead, the particular selection is made so that the selected voice differs with that of the other output messages. The cited section does not indicate how the particular voice is selected for each different message. For example, the particular voices might be randomly allocated to the different messages.

For this additional reason, Tsunoda does not disclose, or even suggest, all of the features recited in claim 23, and therefore does not anticipate claim 23.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

Claim 19 stands finally rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Tsunoda and U.S. Patent No. 5,584,052 ("Gulau et al."). It is respectfully submitted that the combination of Tsunoda and Gulau et al. does not render unpatentable claim 19 for at least the following reasons.

Claim 19 depends from claim 11 and therefore includes all of the features recited in claim 11. As set forth above in support of the patentability of claim 11, Tsunoda does not disclose or suggest all of the features recited in claim 11, from which claim 19 depends. Gulau et al. are not relied upon for disclosing or suggesting the features recited in claim 11 not disclosed or suggested by Tsunoda. Indeed, it is respectfully submitted that Gulau et al. do not disclose or suggest the features recited in claim 11 not disclosed or suggested by Tsunoda. It is therefore respectfully submitted that the combination of Tsunoda and Gulau et al. does not render unpatentable this dependent claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988) (any dependent claim that depends from a non-obvious independent claim is non-obvious).

Reversal of this rejection is therefore respectfully requested.

Claims 20 and 26 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Tsunoda and U.S. Patent No. 6,173,266 ("Marx et al.").

It is respectfully submitted that the combination of Tsunoda and Marx et al. does not render unpatentable either of claims 20 and 26 for at least the following reasons.

Claims 20 and 26 ultimately depend from claim 11 and therefore include all of the features recited in claim 11. As set forth above in support of the patentability of claim 11, Tsunoda does not disclose or suggest all of the features recited in claim 11. Marx et al. are not relied upon for disclosing or suggesting the features recited in claim 11 not disclosed or suggested by Tsunoda. Indeed, it is respectfully submitted that Marx et al. do not disclose or suggest the features recited in claim 11 not disclosed or suggested by Tsunoda. It is therefore respectfully submitted that the combination of Tsunoda and Marx et al. does not render unpatentable these dependent claims. *Id.*

Furthermore, claim 20 recites changing a dialog-communication level in response to a failure to interact with a last of successive alternatives of at least one of information and status messages. As set forth in the Appeal Brief, in Marx et al., a fallback method will be used if it is determined that a **threshold retry number** is reached. Marx et al., column 13, lines 59 to 62. While Marx et al. may provide for alternative prompts, nevertheless, Marx et al. state that prompts and reprompts are continuously output as long as the threshold retry number is not reached. Accordingly, the switchover to the fallback method does not depend on a failure to interact with a last of successive alternatives. Even if a last alternative is output, the switchover does not occur unless the threshold retry number has been reached, *i.e.*, even though further output of prompts or reprompts requires repeating a previously output prompt or reprompt.

Nowhere do Marx et al. disclose that the last of alternatives occurs when the threshold number of retries is reached. For example, with respect to Marx et al., if 100 alternative prompts are stored and the threshold number of retries is 50, the last of alternatives would not be reached when the threshold number of retries is reached, *i.e.*, the use of the fallback method does not occur after the last of alternatives is reached. Furthermore, even should it occur that output of the last of alternative prompts happens to coincide with reaching of the threshold number (which Marx et al. do not disclose), nowhere do Marx et al. disclose that a dialog-communication level is changed **in response to** output of the last of alternatives without interaction therewith. For example, if 50 alternative prompts are stored and the threshold number of retries is 100 and all alternatives are successively output before repeating an already output prompt, then it will occur that the last of alternatives will be output (after a first cycle through the alternatives) without changing to the fallback method, (to which the Examiner apparently refers as disclosing a changed dialog-

communication level), because the threshold number has not been reached. Accordingly, the change to the fallback method is not responsive to “a failure to interact with a last of the successive alternatives,” but is rather responsive to reaching the threshold number of retries.

The Examiner’s Answer asserts that claim 20 does not require changing the dialog-communication level in response to a failure to interact with the last of the plurality of alternatives stored in a speech memory. However, claim 20 recites that the change is responsive to a failure to interact with a last of the successive alternatives. In Marx et al., the prompt alternative that is output last, is last by virtue of cessation of output of prompt alternatives, which cessation is responsive to reaching a threshold number. Thus, in Marx et al., that an output prompt alternative is last in sequence is not the impetus for discontinuing the output of the prompt alternatives. Indeed, the last of the output prompt alternatives does not become a last one until it is decided that the output should be discontinued based on reaching the threshold number. Thus, Marx et al. do not disclose or suggest “changing a dialog-communication level in response to a failure to interact with a last of successive alternatives of the at least one of information and status messages.”

Since Marx et al. do not disclose or suggest changing a dialog-communication level in response to a failure to interact with a last of successive alternatives, for this additional reason, it is respectfully submitted that the combination of Tsunoda and Marx et al. does not render unpatentable claim 20, or dependent claim 26.

Reversal of this rejection is therefore respectfully requested.

Claim 24 stands finally rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Tsunoda, Marx et al., and U.S. Patent No. 5,007,095 (“Nara et al.”). It is respectfully submitted that the combination of Tsunoda, Marx et al., and Nara et al. does not render unpatentable claim 24 for at least the following reasons.

Claim 24 depends from claim 20 and therefore includes all of the features recited in claim 20. As set forth above in support of the patentability of claim 20, the combination of Tsunoda and Marx et al. does not disclose or suggest all of the features recited in claim 20. Nara et al. are not relied upon for disclosing or suggesting the features recited in claim 20 not disclosed or suggested by the combination of Tsunoda and Marx et al. Indeed, it is respectfully submitted that Nara et al. do not disclose or suggest the features recited in claim 20 not disclosed or suggested by the combination of Tsunoda and Marx et al. It is therefore respectfully submitted that the combination of Tsunoda, Marx et al., and Nara et al. does not render unpatentable this dependent claim. *In re Fine, supra*.

Furthermore, claim 24 recites that a sequence of the output of successive stored alternatives is based on a permutation by a random-number generator. The Examiner's Answer admits that the combination of Tsunoda and Marx et al. does not disclose this feature, and instead refers to Nara et al. as allegedly disclosing this feature. However, as set forth in the Appeal Brief, Nara et al. are unrelated to randomizing a sequence of an output of stored alternatives of information or status messages. Instead, the referenced section of Nara et al. describes a speech synthesizer that modulates output of a single stored speech element for a more natural sound. Nara et al., column 1, lines 45 to 47, and column 8, line 66 to column 9, line 19.

The Examiner's Answer incorrectly asserts that Appellants argue against the references individually. Appellants recognize that one cannot show non-obviousness by attacking references individually where rejections are based on combinations of references. However, the proposed combination of Tsunoda, Marx et al., and Nara et al. does not disclose the feature of successively outputting alternatives of information and/or status messages in response to a failure to interact with the information and/or status messages until an interaction occurs, where the sequence of the output of the successive alternatives is based on a permutation by a random-number generator. Instead, at most, the system of Tsunoda, modified to include features of Marx et al. and Nara et al., would provide that, for the messages of Tsunoda output as successive alternatives according to a particular order, single stored speech elements of the messages of Tsunoda are modulated in accordance with random data generation as provided by the system of Nara et al. None of the references, whether considered alone or in combination, suggest further application of the random data generation for determining a sequence of successively output alternatives of information and/or status messages.

For this additional reason, it is respectfully submitted that the combination of Tsunoda, Marx et al., and Nara et al. do not disclose or suggest all of the features recited in, and do not render unpatentable, claim 24.

Reversal of this rejection is therefore respectfully requested.

Claim 25 stands finally rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Tsunoda, Marx et al., and U.S. Patent No. 4,400,787 ("Mandel et al."). It is respectfully submitted that the combination of Tsunoda, Marx et al., and Mandel et al. does not render unpatentable claim 25 for at least the following reasons.

Claim 25 depends from claim 20 and therefore includes all of the features recited in claim 20. As set forth above in support of the patentability of claim 20, the

combination of Tsunoda and Marx et al. does not disclose or suggest all of the features recited in claim 20, from which claim 25 depends. Mandel et al. are not relied upon for disclosing or suggesting the features recited in claim 20 not disclosed or suggested by the combination of Tsunoda and Marx et al. Indeed, it is respectfully submitted that Mandel et al. do not disclose or suggest the features recited in claim 20 not disclosed or suggested by the combination of Tsunoda and Marx et al. It is therefore respectfully submitted that the combination of Tsunoda, Marx et al., and Mandel et al. does not render unpatentable this dependent claim. *In re Fine, supra*.

Reversal of this rejection is therefore respectfully requested.

Claim 27 stands finally rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Tsunoda, Marx et al., and U.S. Patent No. 5,864,805 (“Chen et al.”). It is respectfully submitted that the combination of Tsunoda, Marx et al., and Chen et al. does not render unpatentable claim 27 for at least the following reasons.

Claim 27 depends from claim 20 and therefore includes all of the features recited in claim 20. As set forth above in support of the patentability of claim 20, the combination of Tsunoda and Marx et al. does not disclose or suggest all of the features recited in claim 20, from which claim 27 depends. Chen et al. are not relied upon for disclosing or suggesting the features recited in claim 20 not disclosed or suggested by the combination of Tsunoda and Marx et al. Indeed, it is respectfully submitted that Chen et al. do not disclose or suggest the features recited in claim 20 not disclosed or suggested by the combination of Tsunoda and Marx et al. It is therefore respectfully submitted that the combination of Tsunoda, Marx et al., and Chen et al. does not render unpatentable this dependent claim. *Id.*


Reversal of this rejection is therefore respectfully requested.

For at least the reasons indicated above, Appellants respectfully submit that the relied upon references do not disclose, or even suggest, Appellants’ invention as recited in the claims of the above-identified application. Accordingly, it is respectfully submitted that the inventions recited in the claims of the present application are new, non-obvious, and useful.

For the foregoing reasons and for the reasons more fully set forth in the Appeal Brief, it is respectfully submitted that the final rejections of the pending claims should be reversed.

Respectfully submitted,

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